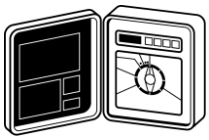

How do you program your irrigation controller or timer?

A good irrigation controller or timer that is properly programmed can keep your plants healthy, and save a lot of water. However, for efficient watering, you can't just set it and forget it. You need to change the watering frequencies as plants become established, as the seasons change, or if it rains. Keep in mind that the controller controls the irrigation system, but YOU control the controller.

What do station, valve and zone mean?

Before we talk about how to enter a program, let's discuss some terminology used when discussing timers. 'Station', 'valve' and 'zone' are terms commonly used with these systems. And while they are closely related, they do refer to different things. A 'station' is a term often used by many controllers to indicate what valve it is controlling. A 'valve' is the device that accepts the signal from the timer to open and allow the water to flow. A 'zone' is the area of the yard (or groups of plants) that is watered by a valve. Let's use all three words in a sentence… "At the programmed time the controller gets a message to turn on a ***station*** and sends a signal through the wires to open the corresponding ***valve*** to let the water flow through the pipes to irrigate the ***zone*** that it controls."

Entering a program

To enter a program, use the basic instructions printed inside the controller door to input your information. You may need to make sure your timer is in the 'set programs' mode before you begin. To get started, there are four important pieces of information that need to be entered and maintained:

1. Current day and time – Generally you need to tell the controller what day of the week it is (Mon, Tue, etc.), and set the time of day. Set the time much like you do a digital clock, making sure you get the a.m. or p.m. correct. Otherwise you may have a 5:30 a.m. start time surprise your 5:30 p.m. barbecue.
2. Watering days or frequency – You can set your controller to water on a certain day or days of the week such as every Wednesday, or every Monday and Thursday. Or, if your controller has a 'skip day' option, you can set a certain frequency by inputting 'days between watering' or 'skip days'. For example, if you input '10' under the skip day option, your controller would turn on 10 days after the last watering.
3. Start times – Once the controller knows what day to water, it needs to know what time to start the watering. On most controllers, one start time will run all of the stations assigned to that program in sequence. Think of it as a program start, not a station or valve start. The timers are designed that way so that you don't have to do the math to figure out when you need to start each valve on the program.
4. Length of time to water – Once the controller knows what days to run and what time to turn on, it needs to know how long to run before turning off. Run times can vary from 10 minutes for something like bubblers, to 6 hours for a drip irrigation system.

After inputting the program, double-check your entries to make sure they are correct. You can run a program test by pressing the semi-automatic button if your controller has this option. This will run the program immediately, then not water again until the programmed days and times. Some controllers may also have a 'review' option that shows all your programmed input.

What is multiple program capability?

An option you should have on your timer is multiple program capability. If you have this option you'll see a switch that allows you to set the timer on program A, B, C or 1, 2, 3. Multiple programs on a controller allow you run different stations on different schedules. If you have a shrub zone that needs to be watered once every 14 days, a tree zone on that needs to be watered once every 21 days, and a lawn zone that needs to be watered every 3 days, you'll need a controller with at least three programs. It's the different frequency needs that determine how many programs you need. See the sample timer program below.

Irrigation Timer Program Example
Summer Watering Schedule

Valve/Station	A Program	B Program	C Program	Valve/Station Description	Start Time	Watering Days
1	30 minutes	-	-	Turf sprinklers	4 a.m.	Mon. & Thur.
2	30 minutes	-	-	Turf sprinklers	-	-
3	-	3 hours	-	Desert shrubs, drip	7 a.m.	every 14 days
4	-	25 minutes	-	Citrus trees, bubblers	-	-
5	-	-	6 hours	Desert Trees, drip	11 a.m.	every 21 days

You may have noticed the following points on the program example:

- We grouped the stations or valves that required the same watering frequencies.
- We've entered only one start time for each program, even when there are multiple valves on the program. In fact, if we entered a 2nd start time for valve 2, the timer would actually run both valves twice.
- We've entered different start times on different programs to avoid overlap. For example, Program B will run valve 3 for 3 hours and valve 4 for 25 minutes for a total of 3 hours and 25 minutes. Since the program starts at 7 a.m., watering will be finished by 10:25 a.m. By starting Program C at 11 a.m., we'll insure that there is no overlap.

Here are a couple of other tips with your timer. If it rains at least ½", you can use the 'off' or 'rain' setting to stop the watering cycle without disturbing your programs. Once the soil dries up, simply turn it back to 'on' to go back to the scheduled programs. Also, if your controller has backup battery capability, replace the battery once each year to make sure you will maintain your programs during power outages.

If you are a serious hands-on gardener, you may want to use your timer manually and only use the programming features when you are away from home. That way you are only watering when you see that the soil is starting to dry out. Most controllers have a 'manual' option available where you can turn on a valve for a programmed amount of time you enter in. Leave the timer in the 'off' mode and just turn on valves manually through the timer when you see it's necessary.

If you don't have instructions for your timer, write down the make and model and call your home and garden center or irrigation supply store to see if they can assist you with getting a toll-free phone number for technical support from the manufacturer. You can often find instructions or more information on the Internet as well.

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